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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,225	04/04/2001	Julian Norley	P-1029	2459
7590 05/03/2005 Melissa A. Carr Advanced Energy Technology Inc. 12900 Snow Road Parma, OH 44130			EXAMINER VARGOT, MATHIEU D	
			ART UNIT 1732	PAPER NUMBER
DATE MAILED: 05/03/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,225

Applicant(s)

NORLEY ET AL.

Examiner

Mathieu D. Vargot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,16,17,22 and 24-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,16,17,22 and 24-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by German Offenleg 2147938, either alone, or further in view of Shane et al (see column 4, lines 37-57).

German Offenleg discloses making a graphite article by calendaring expanded graphite flakes to make graphite foils or sheets, stacking the sheets to form a laminate and pressing the laminate so that the surfaces are aligned at 90 degrees with respect to the pressing. It is submitted that this surface alignment inherently includes an alignment of the grapheme layers within the laminate. German –938 at most lacks a clear showing that the foils or sheets are flexible. It should be noted that all articles have some degree of flexibility and on this basis alone, it is submitted that the claims are met. However, Shane et al has been additionally applied as a teaching reference to show that the calendaring of the expanded graphite as disclosed in the primary reference does indeed form a flexible sheet, as is well known in the art. In that Shane et al is being relied upon to expound upon what is already taught in the primary reference, the rejection is submitted as still properly made under 102.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 17, 22, 25, 26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over German Offenleg 2147938 in view of either of Shane et al (col. 4, lines 37-70; Figs. 7-9) or Tzeng (col. 6, lines 3-51).

German Offenleg -938 is applied for reasons of record as set forth in paragraph 1 of this action, the primary reference essentially lacking a clear teaching of the exact density for the laminate and pressure applied. Either secondary reference discloses pressing single sheets of expanded graphite to the instant density and it certainly would have been obvious to one of ordinary skill in the art to have compressed the laminate in German -938 to this density dependent on thermal and strength properties desired for the laminate. If single layer graphite sheets would be pressed to the instant densities then multiple layer laminates would also be pressed to these densities and the exact pressure required to reach the desired density would have been well within the skill level of the art and readily determined through routine experimentation.

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

In view of the amendment requiring the aligning and pressing to occur after the formation of the laminate, new art has been found which renders applicant's comments directed to Tzeng (at least concerning such being the primary reference) as now not in point. Needless to say, German Offenleg -938 is directed to pressing a graphite laminate to directionally align the layers of the laminate as now set forth in the claims. It is further reiterated that the exact pressure applied and density achieved in the final

product would have been an obvious aspect of the method as these variables are clearly interrelated and either one would have been readily determined through routine experimentation given the other.

4.Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


5.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on 571 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
April 18, 2005


Mathieu D. Vargot
Primary Examiner
Art Unit 1732

4/18/05